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भावाभावसमुच्छेदैरजस्रं व्याकुलं जगत्

"The world is constantly troubled with the vicissitudes of entity and nonentity."

Mārkaṇḍeya Purāṇa, p.

Fitzedward Hall.

LECTURES

ON THE

NYÁYA PHILOSOPHY,

EMBRACING THE TEXT

OF THE

TARKA SANGRAHA.

James Robert Ballantyne.

———000———

PRINTED FOR THE USE OF THE BENARES COLLEGE,

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PREFACE.

THESE lectures were delivered to the senior class of pupils in the English Department of the Benares College, with the view of introducing them to the philosophical terminology current among their learned fellow-countrymen the pandits. The easiest, if not the only, way to obtain a thorough acquaintance with the force of the terms belonging to a philosophical system, is to study the system itself. The circumstances under which the lectures were delivered will account for their familiar tone, and for the introduction of various remarks which would have been superfluous if the work had been addressed to the learned of Europe.

J. R. B.

Benares College,
1848.

No Sans. word for it.

placed. The orig. not ~~derived from~~ निधि, a treasure,
Both words have the same etymy however. or-all.

Explained in the Comment by — easily.

genus", Genericalness ultimate, final, irresoluble, ~~undifferentiable~~ essential, ~~[illegible]~~
× that is, the a connection between substance & quality, &c.
"Co-inherence". indissoluble connection constitutive connection?
collection [illegible]

LECTURES

ON THE

NYÁYA PHILOSOPHY.

THE compendium of the Nyáya system of philosophy, entitled the *Tarka-Sangraha*, which we propose here to translate and comment upon, has the following exordium :—

निधाय हृदि विश्वेशं विधाय गुरुवन्दनं ।
बालानां सुखबोधाय क्रियते तर्कसंग्रहः ॥

सङ्ग्र

world

"Having treasured in my heart the Lord of the Universe, (and having saluted (my) preceptor, (this) Compendium of ~~the Dialectical Philosophy~~ Logical Results is made (by me) for (the purpose of) pleasantly instructing (those who are) unacquainted (with the subject)."

(that is to say, learning [illegible]

The author then proceeds to enumerate the categories or most general heads under one or other of which every name current in the world is capable of being classed. These in accordance with the system of *Kanáda*, followed by the author of the *Tarka-sangraha*, are enumerated as follows :—

द्रव्यगुणकर्मसामान्यविशेषसमवायाभावाः सप्त पदार्थाः ।

"Substance *(dravya)*, Quality *(guna)*, Action *(karmma)*, Community of properties *(sámánya)*, Difference *(visesha)*, Intimate Relation *(samaváya)*, and Non-existence *(abháva)*, are the seven categories *(padártha)*."

The word Category is derived from a Greek word corresponding to the Latin *predicamentum,* and signifying "what can be said or predicated" respecting the several things included under the term. For example, the Weight, Ductility, and Malleability of gold are qualities. We predicate or assert that Ductility comes under the category or predicament of quality—and so of the others. And again we say that gold comes under the category of substance. But we cannot, correctly speaking, predicate any thing of Quality itself, except that it is one of the most general or comprehensive of Names. From its etymology it would seem that the word *padártha* is equivalent to *padasya artha,* "the meaning of a word"—and the meaning of every common term must be comprised under one or other of the Categories that constitute a correct division of Names.

Different schools of philosophy have adopted different sets of categories. Those of Aristotle were "substance, quantity, quality, relation, place, time, condition, possession, action, and passion." Those of Zoroaster were the principles of "sensation, intelligence, judgment, conscience, and life." Those of Locke were "extension, solidity, mobility, perceptivity, motivity, existence, duration, and number."

Our text book now proceeds to enumerate the sub-divisions of the Categories:—

तत्र द्रव्याणि पृथिव्यप्तेजो वाय्वाकाशकालदिगात्ममनांसि नवैव ।

"There (in the enumeration of Categories) what are meant by substances are these nine—earth (*prithiví*), water (*ap*), light (*tejas*), air (*váyu*), ether (*ákása*), time (*kála*), space (*dig*), soul (*átman*), and mind (*manas*)."

Modern Chemistry has resolved water into two gases, one of which is a constituent also of the compound air that we breathe. Earth is a very vague term, on which we shall have to remark further on. Philosophers are still divided in opi-

On "Substance" depend the 6 categories that follow it.
On "Quality" depend "Community of properties," "Intimate Relation," and "Non-Existence."
On "Action" depend the same.
On "Community of properties" depend "Intimate Relation" and "Non-Existence."
"On "Difference" depend the same.
On "Intimate Relation" depends "Non-existence."
On "Non-existence" may depend "Non-Existence."

Subtract from substance the categories by which it is qualified, and atoms remain. Atoms are imponderable, invisible, imprehensible, — in fact, imperceptible to the senses.

*¹ " the substratum, abode, of Quality, &c. the remaining categories.

*² Exclusive of gold, the diamond.

*³ "place" ? direction.

Space = the sum total of directions.

~~measure~~ [illegible]

1 dimension 2 severalty

priority & post. better in ~~S~~ specifying time only. Not so, when of the future.

+ glue & treacle both have this quality. S. is that quality in virtue of which a substance forms itself into drops.

bolt of time & space

psychical Effort exertion. It

Sometimes means "corporeal Effort"; यत्न always means the latter.

tiveness, tenting? colula~~gooe~~?

because they contain water, both quicksilver, for the same reason!!

× another thing or itself.

Motion, locomotion

In the first four actions the subject, contentedly, retains its place? No? In the 1st 4 the subject may or may not be the object; in the fifth the sub. & obj. are identical?

nion as to whether light is an imponderable substance or the effect of undulation. The term Ether seems to be frequently employed in a sense scarcely differing from that of space in three dimensions. The specific quality assigned to it in the *Nyáya* system will be considered further on. Time and Space are here classed as substances, because the word substance is employed to signify that to which qualities can be attributed. The reason for viewing soul and mind as different substances will appear in the sequel.

The Qualities are next enumerated:—

रूपरसगन्धस्पर्शसंख्यापरिमाणपृथक्त्वसंयोग विभागपरत्वा
परत्वगुरुत्वद्रवत्वस्नेहशब्दबुद्धिसुखदुःखेच्छाद्वेषप्रयत्नधर्मा
धर्मसंस्काराश्चतुर्विंशति गुणाः ।

tangible property
(palpability — almost tangibility)

"Colour *(rúpa)*, savour *(rasa)*, odour *(gandha)*, feel *(sparśa)*, number *(sankhyá)*, quantity *(parimáṇa)*, individuality (*prithaktwa*), conjunction (*sanyoga*), disjunction (*vibhága*), distance (*paratwa*), proximity (*aparatwa*), gravity (*gurutwa*), fluidity (*dravatwa*), viscidity (*sneha*), sound (*śabda*), intelligence (*buddhi*), pleasure (*sukha*), pain (*dukha*), desire (*ichchhá*) aversion (*dwesha*), volition (*prayatna*), virtue (*dharma*), vice (*adharma*), and faculty (*sanskára*), are the twenty four qualities."

priority
weight
understanding
merit
demerit

independent
i.e. the property of perpetuation — faculty of self reproduction
(reminiscence ... knowing)

These will be severally considered in the sequel. The varieties of action are next enumerated:—

q S

उत्क्षेपणापक्षेपणाकुञ्चनप्रसारणगमनानि पञ्चैव कर्माणि ।

elevation depression

"Casting upward (*utkshepaṇa*), casting downward (*apakshepaṇa*), contraction (*ákunchana*), dilatation (*prasáraṇa*), and going on (*gamana*), are the five actions."

expansion

The last of these, viz. *gamana*, or "motion in general," includes all the varieties of motion not previously enumerated, and might very well include also these four results of the exertion of force.

परमपरञ्चेति द्विविधं सामान्यम् ।

" Community (*sámánya*) is of two kinds, the highest (*para*), and the lower (*apara*)."

These correspond to *genus* and *species*, as will be shown further on.

नित्यद्रव्यवृत्तयो विशेषास्त्वनन्ता एव ।

ultimate

" But Particularities (or differences) abiding in eternal substances (such as mind, soul, time, place, and the atoms of which the *Nyáya* philosophers consider earth, water, &c., to be composed) are endless." infinite

समवायस्त्वेक एव ।

co-inherence

" But Intimate relation (on aggregation) is of only one kind."

cloth threads

Such is the relation between a ~~jar~~ and the ~~clay~~ of which it is formed—the relation between a body and the matter of which it is made up.

सा

अभावश्चतुर्विधः प्रागभावः प्रध्वंसाभावो ऽत्यन्ताभावो ऽन्यो

न्याभावश्चेति ।

" Non-existence (*abháva*) is of four kinds, antecedent non-existence (*prágabháva*), (or the state of a thing before it began to be), cessation (*pradhwansábháva*), absolute non-existence (*atyantábháva*), and mutual non-existence or difference (*anyonyábháva*)."

Having thus subdivided the categories, the writer of our in the form of products.

?

x also called dharana   positive?

?

unsternal

text book proceeds to consider each of the subdivisions in detail.

गंधवती पृथिवी सा द्विविधा नित्या ऽनित्याचेति।
नित्या परमाणुरूपा। अनित्या कार्यरूपा॥

"Earth is ~~distinguished by the quality of smell~~ the substratum of odour. It is of two kinds—eternal, and transient. It is eternal in the form its atomic character of atoms; transient [illegible] in the form of aggregates or products."

In order to come to a right understanding with the supporters of the view here laid down, it is necessary in the first place to enquire whether the first proposition is intended as a definition or as a dogma. If as a definition of the sense in which the *Nyáya* philosopher intends to employ the term "earth," then it must be conceded that, as the propounder of any theory has a right to define his terms as he pleases, provided he keeps strictly to his definition throughout the argument, and does not attempt to apply, in any different sense of the term, the conclusions thus obtained, the *Nyáya* philosopher is, on this understanding, fully entitled to call every thing earth that smells, and nothing earth that does not smell. The question then remaining will be, whether the division of objects into odorous and inodorous is of any service in rendering our acquired knowledge more distinct, or in facilitating the acquirement of fresh knowledge. Let us see how the case stands. Ammoniacal gas, composed of the two simple and inodorous gases Hydrogen and Nitrogen, is powerfully odorous. Will it facilitate or obstruct our acquaintance with the character and the relations of this substance, if we separate it from the class of airs, and associate it with stones and gems or flowers? History must answer this question—the history of the progress of chemical discovery under the elemental theory and that of inductive analysis.

If, on the other hand, the proposition that "Earth is distinguished by the quality of smell" is intended not as a definition of the sense in which the term earth is to be employed throughout the argument, but as an assertion that there actually is one real and distinct principle which is the constituent equally of every thing that is odorous, then the philosophy of modern Europe demurs to the proposition. It is not self-evidently true. If it be true, therefore, it must be shown to be so by the adduction of evidence, or of sufficient authority. What evidence can be adduced in support of the proposition, we may learn further on. What constitutes suitable authority will also form a question for enquiry in the sequel.

The transitoriness of earth in the form of aggregates signifies the want of permanence in the forms, such as jars, &c., which it may assume. The jar, when crushed to powder, is no longer a jar, but the earth of which it was ~~is~~ composed, still remains.

The existence of eternal atoms has been a favourite speculation in several schools of philosophy. Among the Greeks, Epicurus is one of the most celebrated of the supporters of the atomic theory. The doctrine has been revived by some modern chemists, not as an ascertained fact, but as a hypothesis which furnishes terms very convenient in enunciating the chemical laws of Definite Proportions.

Our text-book proceeds to subdivide the products of earth as follows :—

सा पुनस्त्रिविधा शरीरेन्द्रियविषयभेदात्। शरीरमस्मदादीनामिन्द्रियं गन्धग्राहकं घ्राणं नासाग्रवर्त्ति विषयो मृत्पाषाणादिः।

"It (earth in the form of a product aggregates) again is of three kinds, through the division of organized body (*śaríra*), organ of sense (*indriya*), and inorganic mass (*vishaya*). Earthy organic body is that of such as us ~~mortals~~ and the like; the earthy organ of body, organs of sense, & minds.

The senses are regarded as being of the same nature with that constituent of the External world which they severally take cognizance of. There are five senses, & these take notice of five distinct kinds of qualities, & furnish substrata for which the five Elements are postulated.

olfactories

sense is smell (*ghrána*), the recipient of odour, residing in the forepart of the nose; earthy inorganic mass is clay, stone, and the like."

including dust, mud, & the like.

~~To say~~ that an organ of sense is earthy, or watery, or etherial, would seem to indicate some confusion of thought as to the boundary line between mind and matter. But the *Nyáya* philosophers have perhaps been led to adopt this fanciful view of the senses rather by their excessive fondness for system, which was gratified by the simple means thus afforded of stowing away each of the senses in an ostensibly appropriate place. This point can be more satisfactorily enquired into when we have heard the account given of the other senses.

आ

शीतस्पर्शवत्यपः ।

"Water is distinguished by being cool to the feel."

In the sequel our text book offers the just observation that levity is not an entity but is only the absence of gravity. Had the same view been taken of cold and heat, water would have escaped being defined, as it is here, by a characteristic which the *Naiyáyika* would scarcely recognize if he dipped his finger into a boiling tea kettle.

अ

ताश्च द्विविधा नित्या अनित्याश्च । नित्या परमाणुरूपा :

अनित्या कार्यरूपाः । ताःपुनस्त्रिविधाः शरीरेन्द्रियविषय

भेदात् । शरीरं वरुणलोके । इन्द्रियं रसग्राहकं रसनं

जिह्वाग्रवर्त्ति । विषयः सरित्समुद्रादिः ॥

non-eternal

"And this (water) is of two kinds—eternal and transient:—eternal, in the shape of atoms; transient in the shape of products. These products again are of three sorts, through the division of ~~organized~~ body, organ of sense, and inorganic mass. Watery organized body is to be met with in the ~~realms~~ world of *Varuna* (or Neptune); the watery organ of sense is taste (*rasana*) the ~~recipient~~ percipient of savour, residing in the forepart of the tongue; unorganic masses of water are rivers, seas, &c."

उष्णस्पर्शवत्तेजः। तद्द्विविधं नित्यमनित्यञ्च। नित्यं परमाणु
रूपमनित्यं कार्यरूपम्। पुनस्त्रिविधं शरीरेन्द्रियविषयभे-
दात्। शरीरमादित्यलोके प्रसिद्धम्। इन्द्रियं रूपग्राहकं
चक्षुः कृष्णताराग्रवर्त्ति। विषयश्चतुर्विधो भौमदिव्यौदर्या
या करजभेदात्। भौमं वह्न्यादिकं। अबिन्धनं दिव्यं विद्युदादि।
भुक्तस्य परिणामहेतुरौदर्यं। आकरजं सुवर्णादि। 4

"Light is distinguished by being hot to the ~~feel~~ touch. It is of two kinds—eternal in the form of atoms; ~~transient~~ non-eternal in the form of products. These products again are of three kinds, through the division of organized body, organ of sense, and unorganic mass. Luminous organized bodies abide in the solar realm, as every one knows; the lucid organ of sense is sight (*chakshus*) the per recipient of colour, residing in the forepart of the black pupil of the eye; unorganic light is of four kinds, according to the division of earthy (*bhauma*), celestial (*divya*), intestinal stomachic (*audarya*), and mineral (*ákaraja*). Earthy light is that of fire, &c. Celestial, such as lightning, ~~is without~~ has water for its fuel. Intestinal is the cause of the digestion of what is eaten and drunk. Mineral light is (what is found in mines, as) gold &c." /a

The *Nyáya* regards light and heat as one and the same substance. Modern research has discovered striking analogies not only between light and heat but also between these and electricity and magnetism; but whether they are radically the same or different has not yet been determined by investigation. In the *Nyáya* the organ of sight is said to be a ray of light proceeding from the pupil of the eye towards the object viewed. The *Bauddhas* affirm that the organ of sight is the pupil of the eye itself. Modern optical science pronounces that we see

10

In which hot fuel resides, that is light.

i.e. centre. ?

produced in the earth, &c.

pabulum.

* The Naiyāyikas, no doubt, says that the object must be illuminated.

Ji. p. ?
n.

by means of rays coming to, not proceeding from, the eye. From the bottom of a deep cave we can see an object outside which reflects the sun's rays to our eye; but, standing outside, no ray from the eye enables us to discern an opaque object at the bottom of the dark cave.

The doctrine of intestinal heat seems like an anticipation of of Liebig's theory of digestion; but, like some other seeming anticipations of scientific discovery, it reverses the order of cause and effect. The animal heat *arises* from the digestion of the food; the body acting, as Liebig tells us, "as a furnace which we supply with fuel."

Gold is supposed by the *Naiyáyikas* not to be earthy like the other metals, because the strongest heat of a furnace is insufficient to calcine it, or turn it into an earthy looking oxide.

In the *Mímánsa*, gold is reckoned a distinct substance, as it is by European chemists.

रूपरहितस्पर्शवान्वायुः। स द्विविधो नित्योऽनित्यश्च। नित्यः परमाणुरूपोऽनित्यः कार्यरूपः। पुनस्त्रिविधः शरीरेन्द्रियविषयभेदात्। शरीरं वायुलोके। इन्द्रियं स्पर्शग्राहकं त्वक् सर्वशरीरवर्त्ति। विषयो वृक्षादिकम्पनहेतुः॥

tangible

"Air is colourless, and sensible to the feel. It is of two sorts, eternal and transient:—eternal in the form of atoms—transient in the form of aggregates. These aggregates again are of three kinds through the division of organized body, organ of sense, and unorganic mass. Aerial organized bodies belong to the realm of air (evil spirits, such as the *pisáchas*); the aerial organ, the percipient of touch, is the aerial cuticle (*twak*), ch pervading the whole body. Unorganic masses of air are such as cause the shaking of trees and the like."

Air is, by many people, in the present day, regarded as colourless; but, if the colour of a body be that coloured ray which it reflects, then air should be considered to be blue, for it reflects the blue rays. When we go to a great height, in a balloon or on a mountain, the diminution in the amount of the blue rays refracted, owing to the smallness of the mass of air above us, causes the sky to appear nearly black—black being the absence of all colour.

शरीरान्तः सञ्चारी वायुः प्राणः स चैको ऽप्युपाधिभेदत्प्राणापानादिसंज्ञां लभते ॥

"Air circulating within the body is vital air (*práṇa*); and this, though single, takes the name of breathing, flatulence, &c., through the distinction of modifying circumstances."

On this opinion Professor Wilson (p. 104 of his edition of the *Sánkhya káriká*) remarks, "The vital airs are, in fact, the vital functions of breathing, circulation, and digestion. That these functions, resulting from organization, should be supposed to partake of the nature of aerial humours, originates very possibly from some misapprehension of the phænomena of breathing, flatulence, and arterial pulsation."

शब्दगुणमाकाशं तच्चैकं विभु नित्यञ्च ।

"Ether is the substratum of the quality of sound. It is one, all-pervading, and eternal."

This element is inferred in order to account for sound. As sound can be conveyed through solids, liquids, and air—but not through a vacuum, it appears to be an imaginary element, devised with the view of providing each of the senses with a separate element. As pure air and water are devoid of odour, it seems to have been decided by the *Naiyáyikas* that odour is the distinctive evidence of earth:—the perception of savour being dependent on the presence of moisture in the mouth, it was decided that the sense of taste must be aqueous in its nature:—the relation between light and vision

?

* i.e. inspiration expiration.
from the difference of its accidents

Sound - qualified

omnipresent

An interpolation.

was obvious:—and the air having been appropriated to the sense of touch, which envelopes the whole body just as the air usually envelopes it, there remained nothing for it, if the uniformity of the system was to be established, but to postulate a fifth elementary essence to account for hearing; and this received the name of ether. A fifth element, under the name of Quintessence, was imagined by some ancient philosophers of Europe, but with a different view from that of the *Nyáya* system.

The opinion that the senses must resemble in their nature the objects which they were to apprehend is akin to the opinion long prevalent in Europe that a cause must resemble its effect. It is in some respects the converse of the theory of ideas or sensible forms. In that theory outward bodies were supposed to send refined copies of themselves to the mind through the senses. Here, on the other hand, the mind is viewed as despatching a sense towards its object in a material state resembling that of the object itself. Thus luminous bodies are represented as being discerned by means of a ray of light which proceeds from the eye, and which constitutes the sense of sight.

अतीतादिव्यवहारहेतुः कालः सचैको विभुर्नित्यश्च ।

"The cause of the employment of the terms *past* and the like, is Time (*kála.*) It is one, all-pervading, and eternal."

प्राच्यादिव्यवहारहेतुर्दिक् साचैका नित्या विभ्वीच ।

"The cause of the employment of the terms Eastern ~~*eastern*~~ and the like, is ~~Place (or~~ Space (or Direction—*dik*). It is one, eternal, and all-pervading (or infinite)." 5

ज्ञानाधिकरणमात्मा । स द्विविधो जीवात्मा परमात्माच ।

तत्रेश्वरः सर्वज्ञः परमात्मा एक एव (सुखदुःखादिरहितः ।)

जीवात्मा प्रतिशरीरं भिन्नो विभुर्नित्यश्च ।

(or substratum of the quality)

"The seat of knowledge is the soul (*átman*). It is two-fold —the living soul, and the Supreme soul. The Supreme Soul (or Spirit), the Lord, the Omniscient, is One only~~—subject to~~ neither pleasure nor pain. An individual ~~Living~~ soul is distributed~~, one~~ to each human body. It is infinite and eternal."

The reason assigned for saying that the human soul is infinite is this, that whithersoever the body goes, there the soul too is present. ×

φ

सुखदुःखाद्युपलब्धिसाधनमिन्द्रियं मनः। तच्च प्रत्यात्मनियतत्वादनन्तं परमाणुरूपं नित्यञ्च। which is the

organ or instrument of the

"Mind (*manas*) is the ~~instrument~~ ~~which effects~~ the apprehension of pleasure, pain, &c. It is innumerable, through there being one assigned to each soul. It is in the form of an atom, and is eternal."

The *Naiyáyikas* argue that the mind is minutely small, as an atom, because if it were infinite, as the *Mímánsa* maintains, it might be united with every thing at once, and all sensations might be contemporaneous. Various sensations, the *Naiyáyikas* contend, do not arise at one time to the same soul. "They only seem to do so when passing rapidly, though successively; as a firebrand, whirled with velocity, seems a ring of fire."—The phenomenon here instanced is accounted for in modern philosophy by the statement that the retina retains impressions for a short time after the exciting cause has been removed. Analogously the ear apprehends one continuous sound when the succession of sounds is very rapid, as when a slip of wood is successively struck by the teeth of a rapidly revolving wheel.

Having finished his account of substance, our author proceeds to treat of quality.

अथ गुणाः।

animal
devoid of

·× It is developed, (out of the infinite). by an organized body, like quality (such as knowledge) brought out — as the quality of sound is brought out of the infinite Ether & developed by a drum or a bell — or as, in the undulatory theory of Light, visible light is developed from the invisible luminiferous Ether by the sun &c.
& the cause of the perception ~~of~~

brown –
brownish, auburn?

OF QUALITIES.

चक्षुर्मात्रग्राह्यो गुणो रूपं। तच्च शुक्लनीलपीतरक्तहरितकपिशचित्रभेदात्सप्तविधं पृथिवीजलतेजोवृत्ति। तत्र पृथिव्यां सप्तविधं। अभास्वरं शुक्लं जले। भास्वरं शुक्लञ्च तेजसि।

"Colour is a quality to be apprehended by sight only. It is of seven sorts, white, blue, yellow, red, green, ~~orange~~, and variegated. It abides in earth, water, and light; all the seven sorts occur in earth. In water it is white without lustre. In light it is white and resplendent."
lustrous

The researches of sir Isaac Newton have established the fact that colour belongs to light only, and that a ray of white light contains all the primary colours, which can be separated by a prism of glass. An object appears of the colour of the ray which it reflects; and the different power in different bodies to absorb one portion of a white ray and to reflect the coloured residue of the ray, gives rise to the variety of colours visible in nature.

रसनग्राह्यो गुणो रसः। सच मधुराम्ललवणकटुकषायतिक्त T
भेदात् षड्विधः पृथिवीजलवृत्तिः। पृथिव्यां षड्विधः जले
मधुर एव। /म

" Savour is a quality to be apprehended only by the organ of taste. It is of six sorts, sweet, acid, saline, bitter, astringent, and pungent. It abides in earth and water. In earth it is of all the six sorts. In water it is sweet only."

It would be more in accordance with the usage of modern language, to say that pure water is devoid of savour, although moisture is indispensable to the perception of the savour residing in other matters. The term sweetness more properly suggests the taste of sugar and the like.

घ्राणग्राह्यो गुणो गन्धः। सच द्विविधः सुरभिरसुरभिश्च पृथिवीमात्रवृत्तिः।

"Odour is a quality to be apprehended only by the organ of smell. It is of two sorts, fragrance and stench. It abides in earth only."

On the opinion that odour is peculiar to earth we have already remarked. The division into fragrance and stench is not so much a division of odours as they are in themselves, but rather as they affect individuals agreeably or otherwise. The odour of musk is fragrance to one man, and stench in the nostrils of another.

त्वगिन्द्रियमात्रग्राह्यो गुणः स्पर्शः। सच त्रिविधः शीतोष्णानुष्णाशीतभेदात् पृथिव्यप्तेजोवायुवृत्तिः। तत्र शीतो जले। उष्णो तेजसि। अनुष्णाशीतः पृथिवीवाय्वोः। ष/स्ते

"Feel is a quality to be apprehended only by the (aerial cuticle, or) organ of feeling. It is of three kinds, cold, hot, and temperate (or neither cold nor hot). It abides in earth, water, light, and air. It is cold in water, hot in light, and neither cold nor hot in earth and air."

The feeling here described is that of temperature only; and it is perhaps of that only that the organ gives us information without the cooperation of our muscular frame, which, by creating or offering resistance, conduces to the sensation of hardness, roughness, and the like.

नित्य

रूपादिचतुष्टयं पृथिव्यां पाकजमनित्यञ्च। अन्यत्रापाकजम-नित्यञ्च। नित्यगतं नित्यं। अनित्यगतमनित्यम्।

"These four qualities, colour, &c., are either artificially produced in earth, and then they are transient; or else they are not so produced, in which case they are either transient

Impossibility
touch

through the distinctions of

temperature

Atmosphere -1.8° in light & water.

[illegible]? produced only by the agency of heat

[illegible]

[illegible] by evaporation

~~peculiar conception? consideration?~~

"Two therefore was accursed" Lewes. Hist. Phil. Vol. 1. p. 69. Cf. pp. 62–66.

may mean that 2 things — as 2 drops of water — re 2 only till they run into 1, which they are lways liable to do. Thus every case of 2 or 3 r more may cease; — but if the whole Universe ere to run into one, there would still be that 1 — that unity will always be found if anything found.

the conception of Bulk

small, ~~atomic~~ great

or eternal—eternal in what is eternal (as atoms are), or transient in what is transient (as productions are)."

एकत्वादिव्यवहारासाधारणहेतुस्संख्या ।

"The special cause of the employment of the terms *one*, &c., is Number."

सा नवद्रव्यवृत्तिः । एकत्वादिपरार्द्धपर्य्यन्ता । एकत्वन्नित्यमनित्यञ्च नित्यगतन्नित्यमनित्यगतमनित्यम् । द्वित्वादिकन्तु सर्व्वत्रा नित्यमेव ।

"It (number) is common to all the nine substances. Beginning from *one*, it extends to the utmost limit of numeration (*parárddha*). Unity is either eternal or transient; eternal as regards things eternal, and transient as regards things transient. But duality, &c. are everywhere transient."

The word here rendered "the utmost limit of numeration," is "a *lakh* of *lakhs* of *karors*." The transientness of uneternal unity, when simply rendered, amounts to this, that a piece of wood ceases to be one when you break it in two. The assertion of the universal transientness of duality, &c. is either intended to conciliate the *Vedántists*, who deny duality altogether; or else it is a reflection of the mystical doctrine which these philosophers propound.

मानव्यवहारासाधारणं कारणं परिमाणं नवद्रव्यवृत्ति ।
तच्च चतुर्व्विधं अणु महद् दीर्घं ह्रस्वञ्चेति ।

"The special cause of the use (or perception) of measure, is Quantity. It is common to all the nine substances, and it is fourfold, ~~small, large~~, long, and short."

पृथग्व्यवहारासाधारणं कारणं पृथक्त्वं सर्वद्रव्यवृत्ति :

"The special cause of the employment of the term *several* (or *separate,*) is Individuality, a quality common to all substances."

संयुक्तव्यवहारासाधारणो हेतुः संयोगः सर्वद्रव्यवृत्तिः।

"The special cause of the employment of such a term as 'the state of being connected,' is Conjunction. It is incident to all substances."

संयोगनाशको गुणो विभागः सर्वद्रव्यवृत्तिः।

"The quality which annihilates conjunction is Disjunction. It is incident to all substances."

Disjunction therefore, it is to be remarked, occurs only when conjunction has preceded.

परापरव्यवहारासाधारणकारणे परत्वापरत्वे। पृथिव्यादिचतुष्टयमनोवृत्तिनी ते द्विविधे दिक्कृते कालकृतेच। दूरस्थे दिक्कृतम्परत्वं समीपस्थे दिक्कृतमपरत्वम्। ज्येष्ठे कालकृतम् परत्वं कनिष्ठे कालकृतमपरत्वम्।

"Distance and Proximity are the two special causes of the employment of the terms *far* and *near, ancient* and *recent.* Abiding in the four substances, earth, &c., and in the mind, they are twofold, with reference to place and to time, In regard to what is situated far off there is distance with reference to place. In regard to what is situated near, there is proximity with reference to place. In what is old, there is distance with reference to time. In what is young, there is proximity with reference to time."

Reckoning either backwards or forwards from the point, in space or time, occupied or supposed by the speaker, that one of two things which is nearest he calls *apara,* and that which is further off he calls *para.*

आद्यपतनासमवायिकारणं गुरुत्वं पृथिवीजलवृत्ति।

or severally

(things as) conjoined   The special cause of the conception of things as joined in ~~conn~~ [illegible].

They are of 2 kinds, made up of Space & made up of Time.

this elder
younger
[Distance & Proximity are determined by relation]

non-intimati...

"The cause ~~(other than the body itself)~~ of (a body's) beginning to fall is Gravity, which resides in earth and water."

Gravity is here spoken of as being confined to earth and water. If Gotama or Aristotle had been permitted to witness the experiments of Torricelli and Pascal, they would have changed their opinions respecting the supposed absence of gravity in the atmosphere. One cannot help thinking sometimes with what indignation these great original thinkers and enquirers would now look upon their wilfully blinded adherents, who, instead of following out the course of enquiry which their teacher had indicated, sat down to dream, through centuries, over what one single man's labours had amassed. An intelligent schoolboy of the present day, with his modicum of the experience of past centuries, is a being who would have been welcomed as a messenger from heaven by Plato, *Kanáda,* and all the other enquiring spirits of antiquity. Gold was the heaviest substance known to the ancients; who were not acquainted with Platinum; yet, according to the *Nyáya* view that gold is solidified light, it ought to have no gravity. This difficulty is met by saying that some earth is combined with light in the process of solidification; but the puzzle remains, how, with only a portion of gravitating matter, gold should be heavier than every other substance with which the *Naiyáyikas* were acquainted.

A noticeable decision of the *Naiyáyikas* was this, that levity is not a distinct quality, but the negation of gravity. Light and heavy are, in truth, relative terms. Stone is light in comparison with iron, but heavy in comparison with wood. The lightness here consists not in the absolute negation of gravity, but in the absence of so much as would have made the two equally heavy.

आद्यस्यन्दनासमवायिकारणं द्रवत्वं पृथिव्यप्तेजोवृत्ति । तद्वि-

विधं सांसिद्धिकं नैमित्तिकञ्च। सांसिद्धिकं जले। नैमित्तिकं पृथिवीतेजसोः। पृथिव्यां घृतादौ अग्निसंयोगजन्यं द्रवत्वं।

"Fluidity is the cause~~, other than the fluid itself~~, of commencing to trickle. It affects earth, light, and water. It is of two sorts, natural and adscititious. It is natural (or essential) in water. It is adscititious (or caused by something else) in earth and light. In earthy substance, such as ~~butter~~, &c., fluidity is produced by the ~~application~~ of fire."

Modern discovery tends to establish the opinion that what *Kanáda* regarded as the adscititious cause of fluidity is in reality the indispensable cause of it. In the opinion of the *Naiyáyikas* "fluidity essentially exists in hail and ice; but is obstructed by an impediment arising from an unseen virtue which renders the water solid."—This unseen virtue is no other than the abstraction of heat, which also solidifies molten lead after it has been removed from the fire. The three states of solid, liquid, and aeriform, most probably belong equally to every substance—or, at least to every uncompounded substance; for heat separates many compounds. Every one who has studied the works of modern chemists will admit the probability of this view.

(to use Mr. Colebrooke's expression)

The rendering of light fluid by means of fire, alluded to in the text, has reference to the notion that gold is solidified light.

चूर्णादिपिण्डीभावहेतुर्गुणः स्नेहो जलमात्रवृत्तिः।

"Viscidity (or clamminess) is the quality which causes minute particles to take the ~~shape~~ of a heap. It abides in water alone."

Hence the *Naiyáyikas* hold that oil, &c. are viscid only in consequence of their containing water. Oil contains the elements of water, but mercury does not—yet the particles of

तेजसि च सुवर्णादौ ।

non intimate

(or ooze, or flow) i.e. established by its own nature

chi
conjunction And in light, such as gold, etc. (by fire).

(which according to the Nyaya, refers to ~~Property. the adrishta denotes~~ the merit or demerit of the person to whom hail is more serviceable, or less so, than water would have been:)

nature

produced by the instrumentality
(i.e. in the form of syllables)

?

The knowledge which is produced only by its own antecedence,
they call Remembrance :– ~~simple consciousness~~ ?

mercury collect into heaps just as those of oil or water do. The phenomenon, in each of these cases, falls under what is termed, in modern science, the attraction of cohesion.

श्रोत्रग्राह्यो गुणःशब्द आकाशमात्रवृत्तिः। स द्विविधःध्वन्यात्मको वर्णात्मकश्चेति। ध्वन्यात्मको भेर्यादौ। वर्णात्मकःसंस्कृतभाषादिरूपः। /त

existing only in the ~~only~~ in

"Sound ~~is a quality of~~ ether, to be apprehended by the organ of hearing (*srotra*). It is of two sorts, inarticulate and articulate. Inarticulate sound is ~~that~~ of kettle drums, &c. Articulate is in the form of the Sanskrit and other languages."

On the question of the medium of sound we have already offered some remarks.

सर्वव्यवहारहेतुर्बुद्धिर्ज्ञानं।
सा द्विविधा स्मृतिरनुभवश्च।

"The quality which is the cause of every employment of any term whatsoever, is intellect or knowledge (*buddhi*). It is of two sorts, remembrance and notion."

संस्कारमात्रजन्यं ज्ञानं स्मृतिः। तद्भिन्नं ज्ञानमनुभवः।
स द्विविधो यथार्थोऽयथार्थश्च।

The self-reference to the knowledge

"Knowledge (or a state of consciousness) produced only by ~~the mental faculty~~ (the *sanskára,* termed *bháváná*) is Memory *(smriti).* Knowledge other ~~than~~ [illegible] that, is notion, (*anubhava*). This is of two kinds, right and wrong."

The nature of memory will be considered when we come to the the ~~subject~~ consideration of ~~faculty.~~ qualities self-representing.

तद्वति तत्प्रकारकानुभवो यथार्थः यथा सत्यरजते इदं रजतमिति ज्ञानम्। सैव प्रमेत्युच्यते। तदभाववति तत्प्रकारको

ऽनुभवो ऽयथार्थः। यथा शुक्ताविदं रजतमित्यादि ज्ञानम्।

"In respect to a thing possessing a certain nature, a notion entertained implying that same nature is a right notion. For instance in the case of silver, the notion that 'this is silver' is a right one. It is also termed *pramá,* that is to say, something incontrovertible. Wrong notion is that which implies a nature which does not belong to the thing respecting which the notion is entertained. For example in the case of mother o'pearl, the notion 'this is silver' is a wrong one."

यथार्थानुभवश्चतुर्विधः प्रत्यक्षानुमित्युपमितिशाब्दभेदात्।
तत्करणमपि चतुर्विधं प्रत्यक्षानुमानोपमानशब्दभेदात्।

"Right notion is fourfold, according to the division of perceptions, inferences, comparisons, and authoritative statements. Of these the special cause is also fourfold, viz., perception, inference, ~~comparison~~ recognition of similarity, and ~~verbal authority or testimony~~ assertion." x

The merit of the Sanskrit philosophical nomenclature is observable in this passage, where we find the ~~process~~ of inference ~~and the process of comparison each~~ distinguished by a name different from that which denotes the result of ~~the process~~ its [illegible], yet etymologically related to it. The term for ~~Perception~~ Sense-perception labours under the same defect as the English word, the act and the result being denoted by the same ambiguous term. In our translation we have employed the plural in speaking of results, the ~~act~~ instrument being ~~of course always~~ spoken of in the singular. Comparison ~~and verbal authority are~~ is included, and properly in our opinion, by the followers of the *Sánkhya* philosophy under *right affirmation.* When a man, to take the familiar illustration instanced by the *Naiyáyikas,* is told that a *gayál* (*bos gavaeus*) is like a cow, and so recognises the *gayál,* when he meets with it, by its resemblance to

—commensurate with its object

formed accurately in the measure of
its original — commensurate
with its object.

conclusions from similarity / comparison?
assertions understand / analogy?
Efficient causes,
+ sense, induction, i.e. peculiar
knowledge of a likeness?
recognition of similarity.
instrument in the production of

A cause which (is so in so far as it) has operation, is called Karana.

"That which can exist (in some given character aspect) even in the absence of the product, &c. = mere

"That which constantly invariably precedes some result production, and is not otherwise constituted — (i.e. is not by anything else, except the result in question, constituted a cause) — is the [illegible] a cow, his knowledge is based on the affirmation of the person who stated the resemblance to him. In a strict classification, founded on a complete analysis, affirmation would not appear as an ultimate ground of knowledge or belief, for it is itself indebted to inference for all its efficacy. We believe testimony only where we have inferred that it is trustworthy. Every one is not aware of having made an inference in such a case, because it is not every one that is capable of noting and analysing the operations of his own mind, even were it to occur to him to attempt it. A young Arab believes the *Kurán* on the testimony of his father, because he has observed during his own infancy that his father is a much better informed person than himself, and he has always found it safer to take his father's word on any point than to decide in opposition to it on the strength of his own experience. He therefore infers that his father's word is to be trusted in regard to the *Kurán* also, and he infers that what he finds written in it is true, because this follows of course from the belief that his father had given a true account of the matter. Now, if, forgetting or not perceiving the real foundation of his belief, the young Arab grows up under the habitual impression that the *Kurán* is in itself an authority standing in need of no process of inference, from matters extrinsic or intrinsic, for its establishment, then he must needs remain a Musalmán to the end of his days, though no one but a Musalmán will think that his notion is a right one.

व्यापारवदसाधारणं कारणं करणं ।

"An efficient cause, not common to other effects, is called a special cause."

अनन्यथासिद्धकार्यनियतपूर्ववृत्ति कारणं ।

" ~~That which invariably precedes an effect that cannot else be, is a cause.~~"

कार्यं प्रागभावप्रतियोगि ।

See p. 45.

annules [illegible] of an

"That of which ~~there was~~ antecedent non-existence is an effect."

~~This~~ coincides with Mill's proposition (Logic, V. 1. p. 395), that "It is an universal truth that every fact, which has a beginning, has a cause."

कारणं त्रिविधं समवाय्यसमवायिनिमित्तभेदात्। यत्समवेतं कार्यसुत्पद्यते तत्समवायि कारणं यथा तन्तवः पटस्य पटश्च स्वगतरूपादेः। कार्येण कारणेन वा सहैकस्मिन्नर्थे समवेतत्वे सति कारणमसमवायि कारणं यथा तन्तुसंयोगः पटस्य तन्तुरूपं पटरूपस्य। तदुभयभिन्नं कारणं निमित्तकारणं यथा तुरीवेमादिकं पटस्य। तदेतत्त्रिविधकारणमध्ये यदसाधारणं कारणं तदेव करणम्।

"Cause is of three kinds according to the distinction of intimate, non-intimate, and instrumental. That from which an intimately relative effect arises in an intimate cause, as threads are of cloth, and the cloth itself of its own colour, &c. Where this intimate relation exists, that cause which is associated in one and the same object with such effect or cause, is non-intimate. Thus the conjunction of the threads is the non-intimate cause of the cloth, and the colour of the threads that of the colour of the cloth. The cause which is distinct from both of these is the instrumental cause, as the weaver's brush, the loom, &c. are of cloth. Among these three kinds of causes, that only which is not a universally concurrent cause or condition (of all effects, as God, time, place, &c. are) is called the instrumental cause."

Let us compare this view of causes with the view taken by the followers of Aristotle. In the opinion of these speculators four things were entitled to the name of cause; and adverse [illegible]

~~inconsistent~~
~~contrastant~~ counter-entity in referral to an

~~[illegible]~~
[illegible] ?

these were severally termed the *material*, the *efficient*, the *formal*, and the *final*. That out of which any thing is made, as the marble out of which a statue is made, they termed its material cause. This corresponds to the *samaváyi-kárana*, or intimate cause, of the text. It is the ground of the possibility of a thing's coming into existence. The efficient cause was that in which resides the moving power requisite in order to render the possible existence actual; as the sculptor. According to the *Nyáya*, the sculptor would be classed along with his chissels as one among the several *nimitta-kárana* or efficient causes. The designation of *karana*, or instrumental cause, would belong to the chissel. The final cause of a thing, according to the Aristotelian view, is that very thing in its completeness; as the statue when made. In modern language the final cause is synonymous with the purpose to which any object is supposed to contribute; thus the promotion of vegetion may be regarded as the final cause of rain. This corresponds, to what the *Naiyáyikas* term *prayojana*, motive or purpose. The formal cause is that which must supervene to the matter, in order to give the thing its precise individual existence as that thing and no other; as the shape which the sculptor communicates to the marble. This corresponds to the *asamaváyi-kárana*, or non-intimate cause, of the text, inasmuch as it is concerned about the relative distribution of the particles of which the aggregate is made up. The word "form" is employed in a peculiar sense by Bacon to denote that in virtue of which a given quality resides in a given thing; as transparency in glass. "The [Baconian] form, then, (*vide* Preliminary Dissert. Enc. Brit. p. 459), differs in nothing from the cause; only we apply the word *cause* where it is an event or change that is the effect. When the effect or result is a permanent quality, we speak of the form or essence."

In modern philosophy the employment of the word cause has been much simplified. We now speak of the marble as the material of the statue, not as its material cause. Again, in modern philosophy, the same view of form is taken as that taken by the *Sánkhyas,* who say "Cloth is not different from the threads of which it is woven, for it is made up of them;" which, (*vide* Wilson's *Sánkhya káriká,* p. 38), is tantamount to Dr. Brown's declaration "that the form of a body is only another name for the relative position of the parts that constitute it; and that the forms of a body are nothing but the body itself." The term "final cause" is still current, but in the altered sense that we have already stated. The arguments for the existence of a Deity, drawn from the observation of nature, have reference to final causes. Harvey was led to the discovery of the circulation of the blood by enquiring into the final cause of, or purpose to be subserved by, the valves in the blood vessels.

The scientific employment of the word cause in modern philosophy is founded on the familiar truth, (as stated by Mill,—Logic, V. 1. p. 397), "that invariability of succession is found by observation to obtain between every fact in nature and some other fact which has preceded it." Of two facts so related, that which precedes is termed the cause of the other. To prevent misconception, it is frequently termed the *physical* cause; the word physical serving to signify that we are speaking merely of the invariable relation of succession observed in nature between the two facts, and not of any efficiency in the antecedent for the production of the consequent. That efficiency we cannot well conceive to consist in any thing else than the fact, that the relations observed in nature are such as the Author of Nature has thought fit to establish among his works. The efficiency of a cause consists in its being God's will that it should be efficient. This, in our opinion, is what is conveyed by the Musalmán expression *musabbib-ul-asbáb,* usually rendered "The causer of causes;" but

But you cannot say that the relative position of parts of the body are the same thing.

which, to our mind, rather expresses, "Who maketh causes to be efficiently such," or "Who bestoweth on something that, in virtue of which it becomes a cause."

Let us see how the chain of cause and effect, in regard to the production of cloth, looks when we resolve the variously named causes of the *Nyáya* into the language of invariable antecedence and succession. In such a sequence we do not enumerate the matter of the cloth, because, as the matter is the ground of the possible existence of the thing, the existence of the cloth about which we are speaking implies the existence of the matter. When we speak of an effect, we speak of an event, not of a substance; and the event of which we have to trace the chain of antecedents is the appearance of a certain amount of matter in the form of cloth. The event which invariably precedes, and is invariably followed by, the appearance of cloth, is the suitable conjunction of threads. This, then, is the cause why cloth has made its appearance. That conjunction itself was immediately preceded by the operation of the loom upon the threads properly disposed. This operation, which always precedes the conjunction, and which, in regard to threads suitably disposed, is invariably followed by it, is the cause of the conjunction. The operation of the loom was consequent on the muscular exertions of the weaver, which invariably precede each movement of the loom. Again, the exertions of the weaver were consequent upon his desire to possess cloth, and this desire itself was consequent upon other considerations, which we need not at present enquire further into. Thus we find that the different kinds of causes enumerated by Aristotle and the *Naiyáyikas* may be resolved into similar sequences, differing only in regard to the distance of each link in the chain from the ultimate effect dependent upon it.

तत्र प्रत्यक्षज्ञानकरणं प्रत्यक्षं । इन्द्रियार्थसन्निकर्षजन्यं ज्ञानं प्रत्यक्षं । तत् द्विविधं निर्विकल्पकं सविकल्पकञ्च । तत्र निष्प्र-

कारकं ज्ञानं निर्विकल्पकं। यथा इदं किञ्चित्। सप्रकारकं ज्ञानं सविकल्पकं। यथा डित्थोऽयं। ब्राह्मणोऽयं। श्यामोऽयमिति।

"The cause of ~~perception is~~ the knowledge [called] sensation is an organ of sense; knowledge pro- tact duced by the con~~junction~~ of an organ of sense and its object, is sensation. It is of two kinds, where it does not ~~admit of~~ an alternative, and where it does. The knowledge which does not admit of an alternative is that which involves no specification, as in the simple cognition that 'this is something that exists.' The knowledge which ~~admits of~~ an alternative is that which includes a specification, as 'This is *Dittha*', 'This is a *bráhman*,' 'this is black.'"

The opinion here expressed, that sensation is produced by the conjunction of the object and the sense, is borne out of modern enquiry, which tends to go still further, and to regard with approval what Sir W. Hamilton terms the shrewd observation of Democritus, that "all the senses are only modifications of touch." [Reid's collected works, p. 104].

प्रत्यक्षज्ञानहेतुरिन्द्रियार्थसन्निकर्षः षड्विधः संयोगसंयुक्तसमवायसंयुक्तसमवेतसमवायसमवायसमवेतसमवायविशेषणविशेष्यभावाइति। चक्षुषा घटप्रत्यक्षजनने संयोगःसन्निकर्षः। घटरूपप्रत्यक्षजनने संयुक्तसमवायः सन्निकर्षः चक्षुः संयुक्ते घटे रूपस्य समवायात्। रूपत्वसामान्यप्रत्यक्षे संयुक्तसमवेतसमवायः सन्निकर्षः चक्षुःसंयुक्ते घटे रूपं समवेतं तत्र रूपत्वस्य समवायात्। श्रोत्रेण शब्दसाक्षात्कारे समवायःसन्निकर्षः कर्णविवरवृत्त्याकाशस्य श्रोत्रत्वात् शब्दस्याकाशगुणत्वात् गुणगुणिनोश्च समवायात्। शब्दत्वसाक्षात्कारे समवेतसमवायःसन्निकर्षःश्रोत्रसमवेतेशब्दे शब्दत्वस्य समवायात्। अभावप्रत्यक्षे विशेषणविशेष्यभावःसन्निकर्षःघटाभाववद्भूतलमित्यत्र

pay regard to

unconditioned & conditioned

signa, terminus significationes. "Secondly, if they [– terms –] are to be Predicables, they must not be Logical Individuals*. That is, not objects of sensation, inward or outward, marked out & distinguished from all other objects of sensation by their occupying a certain space at a certain time, which space it is inconceivable that any other thing should occupy at the same time, &c.

Nomen Logicum] "But either Nomina Logica. Names, that is, for certain classes of things subject to and constituted by some common quality or qualities.

"* The accurate Etymological sense of the word Individuum is plainly that which has no qualities which we know of – quod nihil habet dividui – but is an object of sensation known to us only by its occupying a certain space at a certain time. In this sense, however, it would be absurd to talk of an individual man or horse. If we know that a thing is a man or a horse, we know some of its qualities, & therefore it is no longer an individual to us. Nothing can be individual to us [illegible] of which we know more than that it is a Thing forming a ποῦ & a ποτέ."

Moberly's Lectures on Logic. p. 11.

चक्षुःसंयुक्ते भूतले घटाभावस्य विशेषणत्वात् । एवं सन्निकर्षषट्कजन्यं ज्ञानं प्रत्यक्षं । तत्करणं इन्द्रियं तस्मादिन्द्रियं प्रत्यक्षप्रमाणमिति सिद्धम् ।

॥ इति प्रत्यक्षखण्डः ॥

contact

"The relative proximity of a sense and its object, which is the cause of perception, is of six kinds, (1.) conjunction, (2.) intimate union with that which is in conjunction, (3.) intimate union with what is intimately united with that which is in conjunction, (4.) intimate union, (5.) intimate union with that which is intimately united, and (6.) the connection which arises from the relation between that which qualifies and the thing qualified. For example, when a jar is perceived by the eye, there is (between the sense and the object) the proximity of conjunction. In the perception of the colour of the jar, there is the proximity of intimate union with that which is in conjunction, because the colour is intimately united with the jar, which is in conjunction with the sense of vision. In the perception of the fact that colour generally is present, there is the proximity of intimate union with what is intimately united with that which is in conjunction, because the generic property of being coloured is inherent in the particular colour which is intimately united with the jar which is in conjunction with the sense of vision. In the perception of sound by the organ of hearing, there is the proximity of intimate union, because the organ of hearing consists of the ether which resides in the cavity of the ear, and sound is a quality of ether, and there is intimate union between a quality and that of which it is the quality. In the perception of the nature of sound (in a given sound of which we are cognizant) the proximity is that of intimate union with what is intimately united, because the nature of sound is inherent in sound which is intimately united with the organ of hearing. In the perception of nonexistence, the proximity is dependent on the relation between a distinctive quality and that which is so distinguished, because when the ground is (perceived to be) possessed of the nonexistence of a jar, the nonexistence of a jar distinguishes the ground which is in conjunction with the organ of vision."

"Knowledge produced by these six kinds of proximity is perception. Its instrumental cause is sense. ~~Therefore~~ it ~~is clear that sense is the authority for perception~~."

"So much for the chapter on Sense."

The doctrine here laid down respecting the nature of the proximity between the senses and their supposed objects, is a corollary to the doctrine of material and formal causes, which, as we have already shown, has been superseded in modern speculation by the simpler view of invariable sequence.

Instead of saying that we perceive the jar immediately, and its colour as inherent in it, modern philosophers hold that the eye takes cognizance of nothing but the colour, which is due to the reflected rays coming to the eye from the object; and from the sensation of a coloured form we infer that there is a jar, just as the sparrows inferred that there was a bunch of grapes in the picture of the Greek artist. Our interpretation of a sign may be right or wrong, but the only sign conveyed to the mind by vision is that of coloured form. Again, we do not now say that the sense of vision takes cognizance of the generic quality of colour as residing in any particular colour, for we hold that the term colour, generically, is nothing else than a contrivance of language for the purpose partly of economizing words, and, more particularly, of furnishing general propositions, without which we could not reason.

The hypothesis of ether in the ear has been rendered unnecessary by the observation, that the vibrations of the ear occasioned by a sounding body, are communicated to the

Thus it is settled that an organ of sense is what gives us the knowledge called sensation.

(in the production ~~of~~)

The instrument of an inference is a generalized fact. An inference is the knowledge that arises from deduction. Deduction is the ascertaining that ~~something is entitled to be~~ the subject ~~of an assertion~~ possesses that character which is invariably attended [by what we then predicate of it].

~~परामर्श = ratiocination~~ Mill vol. 2. p. 416.

an application of a general principle to a special case.

tympanum or drum of the ear, which communicates with the auditory nerve, an offshoot of the brain beyond which we can trace the phenomenon no further—the way in which the matter of the nerves communicates with the immaterial principle of conciousness being one of the mysteries which remain with the Creator.

The subtleties about the proximity between sense and non-existence were necessary, to give completeness to the system, in which non-existence plays an active part.

~~In saying that "sense is the authority for perception," the meaning appears to be this that, if we incline to doubt the evidence of our senses, no reason can be given why we ought to trust it—all reasoning being based on our accepting the deliverances of sense.~~

We now come to the chapter

ON INFERENCE.

अनुमितिकरणमनुमानम्। परामर्शजन्यं ज्ञानमनुमितिः। व्याप्तिविशिष्टपक्षधर्मताज्ञानं परामर्शः। यथा वह्निव्याप्यधूमवानयं पर्वत इति ज्ञानं परामर्शः। तज्जन्यं पर्वतो वह्निमानिति ज्ञानं अनुमितिः। यत्र यत्र धूमस्तत्राग्निरिति साहचर्यनियमो व्याप्तिः। व्याप्यस्य पर्वतादिवृत्तित्वं पक्षधर्मता।

An Inductive Generalization (in the ~~attaining~~ production)

"~~Deduction~~ is the instrument~~al cause~~ of an inference. An inference is knowledge produced ~~from a logical antecedent~~ by the application of a general principle. Such application consists ~~This consists~~ in the knowledge that a character of the subject is distinctively invariably attended by [illegible] the fact of something else S. ~~of a general principle combined with~~ the knowledge that the case in question is one to which it ~~is applicable~~. For example, the knowledge that 'this hill is characterised by smoke, which is always attended by fire,' is ~~a logical antecedent~~, the knowledge produced from which, viz. that 'the hill is fiery,' is an inference. ~~The gene-~~

(the consideration of an inductive generalization in combination with a particular case that falls under it) not necessarily; indispensableness;

necessity or indispensableness or invaria-bleness !

rality (or universality) of a principle consists in the invariable concomitancy of one given thing with some other, as in the instance that 'wherever there is smoke there is fire.' By the applicability of the principle to the case in question, is meant, the fact that there belongs to the hill, or the like, the character which is thus invariably accompanied."

In order that we may be enabled to trace the analogy which, disguised by differences arising from diversity in the point of view, or in the form of expression adopted, must yet necessarily exist between any two processes of reasoning, neither of which is unsound, let us examine severally the terms in the foregoing passage, which we have rendered, as nearly as we could, by equivalents borrowed from the logic of Europe.

The first formal difference that requires to be noticed is the fact, that whilst the European logic employs a phraseology founded on classification, the *Nyáya* goes to work with the terms on which the classification is based. The former infers that kings are mortal because kings are men, a class of beings who are mortal. The latter arrives at the same inference by means of the consideration that mortality is inherent in humanity and humanity in kings.

The process of inference *(anumána)* is rightly distinguished by a separate name from the inference or conclusion *(anumiti)*, the knowledge resulting from the process. This knowledge is said to be deduced from *parámarsa*, which we have rendered "the knowledge of a logical antecedent." This, though viewed by the *Naiyáyikas* as the one indivisible antecedent of an inference, contains in reality the two premises which belong to the Aristotelian deductive syllogism. In the antecedent instanced in the text, there are wrapt up in one the major premiss "all things that smoke are fiery," and the minor premiss, "this hill is smoking." The reason for preferring to regard these as two inseparable parts of a single statement ap-

----.character of the subject

Invariable attendedness is the fact of being constantly accompanied, — as in the example 'Wherever there is smoke there is fire [by which it is invariably attended]'. By 'the subject's possessing a character &c' we mean that in a mountain or the like there is present that [e.g. smoke] which is invariably attended [e.g. by fire].

of

A general principle may be regarded
as a generalized fact.

[illegible]

pears to be this, that it is only when simultaneously present to the mind that the premises suggest the inference.

The term which we have rendered "invariable concomitancy" is *vyápti*—"pervading inherence." In regard to the import of a proposition which the logic of Europe calls a Universal Affirmative, such as "All men are mortal," the *Naiyáyika* would say that there is pervading inherence, *(vyápti)* of mortality in humanity—and he would state the proposition thus, "where there is humanity, there is mortality." In a universal affirmative the predicate or major term connotes the "pervader" *(vyápaka)* or invariable concomitant of the characteristic connoted by the subject or minor term, which is "pervaded" *(vyápya)* by it. The term *paksha* means the subject or minor term of the conclusion; and *paksha-dharmmatá,* the word in our text, means the possession of the character which entitles its possessor to be the subject of the conclusion—the condition of a mountain, for instance, in so far as the *vyápya,* or characteristic connoted by the subject of the major premiss, (viz. "smoke"), belongs to the mountain which is thereby entitled to be the subject of the conclusion.

अनुमानं द्विविधं स्वार्थं परार्थञ्च। स्वार्थं स्वानुमितिहेतुः। तथाहि। स्वयमेव भूयो भूयो दर्शनेन यत्र यत्र धूमस्तत्राग्निरिति महानसादौ व्याप्तिं गृहीत्वा पर्व्वतसमीपं गत्वा तद्गते चाग्नौ सन्दिहानः पर्व्वते धूमं पश्यन् व्याप्तिं स्मरति यत्र धूमस्तत्राग्निरिति। तदनन्तरं वह्निव्याप्यधूमवान् अयं पर्व्वत इति ज्ञानमुत्पद्यते। अयमेव लिङ्गपरामर्श इत्युच्यते। तस्मात्पर्व्वतो वह्निमानिति ज्ञानमनुमितिरुत्पद्यते। तदेतत्स्वार्थानुमानम्।

"The process of Inference is of two kinds, for one's self, and for another. That which is for one's self is the cause of a private conclusion in one's own mind. For example, having repeatedly and personally observed, in the case of culinary hearths and the like, that where there is smoke there is fire, having assumed that the concomitancy is invariable, having gone near a mountain, and being doubtful as to whether there is fire in it, having seen smoke on the mountain, a man recollects the invariable concomitancy of fire where there is smoke. Then the knowledge arises that 'this mountain is characterised by smoke, which is invariably attended by fire.' This is called *linga-parámarśa,* which means such recognition of a sign as leads to inference. Thence is produced the knowledge that the 'mountain is fiery,' which is the conclusion *(anumiti)*. This is the process of inference for one's self."

यत्तु स्वयं धूमादग्निमनुमाय परम्प्रति बोधयितुं पञ्चावयववाक्यं प्रयुंक्ते तत्परार्थानुमानं। यथा पर्वतो वह्निमान्। धूमवत्वात्। यो यो धूमवान् स वह्निमान् यथा महानसः। तथाचायं। तस्मात्तथेति। अनेन प्रतिपादिताल्लिंगात्परोऽप्यग्निं प्रतिपद्यते।

"But, after having, to the satisfaction of his own mind, inferred fire from smoke, when one makes use of the five-membered form of exposition for the instruction of another, then is the process one of inference for the sake of another. For example, (1.) The mountain is fiery; (2.) because it smokes; (3.) whatever smokes is fiery, as a culinary hearth; (4.) and this does so; (5.) therefore it is fiery as aforesaid. In consequence of the token here rendered clear the other also admits that there is fire."

प्रतिज्ञाहेतूदाहरणोपनयनिगमनानि पञ्चावयवाः। पर्वतो वह्निमानिति प्रतिज्ञा। धूमवत्वादिति हेतुः। यो यो धूमवानित्युदाहरणम्। तथाचायमित्युपनयः। तस्मात्तथेति निगमनम्॥

inference?   ?

by this?.

"The five members of this syllogism are severally named: (1.) the proposition, (2.) the reason, (3.) the example, (4.) the application, and (5.) the conclusion. 'The mountain is fiery' is the proposition; 'because of its being smoky' is the reason; 'whatever is smoky, &c.' is the example; 'and so this mountain is' is the application; 'therefore the mountain is fiery' is the conclusion."

The five-membered argument has been the object sometimes of undeserved censure, and sometimes of commendation equally undeserved. When it is commended, at the expense of the Aristotelian syllogism, on the allegation (see a quotation in Sir G. Haughton's *Prodromus,* p. 215) "that it exhibits a more natural mode of reasoning than is compatible with the compressed limits of the syllogism, and that its conclusion is as convincing as that of the syllogism," the commendation is based simply on a misconception of the syllogism thus disparaged. On the other hand, when it is censured as "a rude form of the syllogism," the censure is unfair, because what corresponds to the syllogism is the two-membered expression, which, we have already seen, comprises neither more nor less than the syllogism does; whereas the form now under consideration is proposed as the most convenient for communicating our convictions to others. Being a matter of exposition, it is therefore a question of Rhetoric whether the form be or be not the most convenient in which to arrange our propositions, our proofs, and our illustrations. The five-membered expression, so far as its arrangement is concerned, is a summary of *Kanáda's* views in regard to Rhetoric, "an offshoot from Logic," (see Whately's Elements of Rhetoric, page 6), and to which, after "the *ascertainment* of the truth by investigation," belongs "the *establishment* of it to the satisfaction of *another*." Disregarding what is called rhetorical artifice, which, in his system, would have been out of place, as it would have been out of place in Euclid's Elements of Geometry, *Kanáda* directs his rhetorician to commence, as Euclid does, by stating the proposition to be proved. The reason is next to be alleged, and then instances are to be cited in order to show that the reason is sufficient to establish the fact in regard to all cases of a certain given character. The auditor is then to be reminded that there is no dispute that the case in question is of the given character, and the oration winds up with the reintroduction of the original proposition in the new character of an established conclusion, just as Euclid's argument winds up by reintroducing the triumphant proposition with a flourish of trumpets in the shape of a "Quod erat demonstrandum."

Thus, rhetorically considered, the five-membered expression is a very suitable framework for a straight-forward argumentative speech, making no appeal to the passions, and not hesitating to table, without exordium, the proposition which it proceeds to establish.

Logically considered, the five-membered expression is a combination of the Inductive with the Deductive syllogism. It aims at laying before an auditor, for his conviction, an exposition, conjointly, of the two separate processes which are described as having previously led to the conviction of the speaker himself. With this view, the instances which led the speaker to an inductive generalization ([illegible]) are directed to be cited, for the satisfaction of the auditor, in the third division of the rhetorical address—from which circumstance it has so happened that those who suppose the intended function of the model oration and of the Aristotelic syllogism to be identical, have come either to regard the oration as an illogical monstrosity, or else to fancy that it is a great improvement upon the syllogism. The former misconception is that of those who, like Ritter, ("History of Ancient Philosophy," Vol. 4. p. 365), were familiarly conversant with the logic of the schools. The other misconception was to be looked for in the case of those whose notions of the logic of the schools were derived from Locke and Dugald Stewart.

Whilst *Kanáda* in his rhetorical section, gives the framework for a set harangue, to be delivered without interruption, *Gautama* supposes an opponent, and a chairman, or Speaker of the House. In his first aphorism, (see the "Logical Aphorisms of Gotama," published in Calcutta, p. 2; Colebrooke's Essay, p. 265; or Ward's "View, &c. of the Hindoos," v. 4, p. 239,) he sketches, by an enumeration of the sixteen topics following, what may be regarded as "the natural history of a debate." What is to be admitted as proof *(pramána)* having been pre-determined, and the subject of discussion *(prameya)* having been mooted, the impartial chairman, not having yet heard the arguments, is in a state of doubt *(sansaya)*, both as to what is the fact of the matter, and also as to there being any sufficient motive *(prayojana)* for entertaining the question. The asserter of the proposition explains the importance of the question, which furnishes the motive for entertaining it; and he supports his own opinion on the matter by citing examples *(drishtánta)* sufficient, he conceives, to make out an established case (*siddhánta*). An opponent rises, and takes the reasoning to pieces (*avayava*), putting it, that is to say, into the form of the five-membered discourse, and trying to show its insufficiency. The first speaker makes a refutation (*tarka*) of these objections, and thus furnishes confirmation (*nirnaya*) of his own position. The objector, who, being, by hypothesis, in the wrong, is of course obstinate, begs that a fair discussion (*váda*) may be allowed; and he proceeds to offer a wrangling rejoinder (*jalpa*); and, in default of better arguments, he brings forward cavils (*vitanda*), fallacies (*hetwábhása*), ambiguous expressions, and such-like disingenuous artifices (*chhala*). By these unworthy proceedings he lays himself open to the confutation (*játi*) to which a reasoner is liable who evidently contradicts himself, and, the assembly being no longer disposed to listen to him, he is voted a nuisance, and finds himself in the predicament of being rebuked (*nigraha-sthána*) by the president, who puts him down, and declares that "the Ayes have it."

Kanáda's six categories belong, in the foregoing enumeration of topics, to the head of *prameya*—things, the existence of which is to be proved.

The point, in the course of analysing the reasoning process, at which the logic of India came to a halt, whilst that of Europe made an important step in advance, was that at which the sagacious mind of Aristotle discerned that whilst the process of induction, in all save those barren cases where every one of the individuals is included in the enumeration, must fall short of demonstrative certainty, the subsequent process of deduction could be placed on a basis as stable as that of Mathematical science. It would be superfluous here to dwell upon the scientific beauty of Aristotle's analysis of the reasoning process. Its scientific beauty, and also its practical utility, are well known to the intelligent readers of Whately and DeMorgan; and are hidden in deepest darkness from those who, on this point, follow Locke and misunderstand Bacon. It is not exactly fair to say with Ritter ("History of Philosophy," Vol. IV. p. 365,) that, two of the five members of *Kanáda's* argument "are manifestly superfluous, while, by the introduction of an example in the third, the universality of the conclusion is vitiated:"—for, as we have shown, the citation of the example is designed, as a matter of rhetorical convenience, to bring to the recollection of the hearer examples, in regard to which all parties are unanimous, and which are such as should constrain him to admit the universality of the principle from which the conclusion follows. The short-coming of the *Naiyáyikas* consists in their having failed to perceive that the ascertainment of "pervading inherence" (*vyápti*), that is to say the process of Induction, and the subsequent process of Deduction are two processes as advantageously susceptible of entirely separate consideration as the question of accuracy in the statement of an account and the question of accuracy in its summation—the latter being in every case a question capable of demonstrative solution, and therefore conveniently

with an of [illegible]

We have next, then, to enquire what several kinds of Signs there are.

disposeable of at the outset, leaving the remainder of the enquiry, if any further enquiry be found necessary, all the more easy to be disposed of. That the *Naiyáyikas* failed to perceive this, is less strange than that it should have been forgotten again in Europe, as it so generally was till very recently. No one is perhaps more perfectly aware of the real import of the distinction here adverted to than Mr. J. S. Mill; and it is therefore matter of regret that he should have thought proper to write of the syllogism, in his "System of Logic," in a sort of disparaging tone, which is calculated to perpetuate misconception just in proportion to the great merit of the rest of his work. No doubt, it will have this effect only on his superficial readers; but superficial readers constitute a numerous and influential body, whom it is of great importance not to mislead.

स्वार्थानुमितिपरार्थानुमित्योर्लिंगपरामर्श एव कारणं तस्मा
ल्लिंगपरामर्शो ऽनुमानम् । 4

"The cause of an inference (*anumiti*) whether for one's self or for another, is simply the consideration ~~such recognition~~ of a sign ~~as leads to inference~~; therefore the inductive generalization ~~act of inference~~ (*anumána*, which was previously stated to be the cause of an inference) is just this consideration ~~recognition~~ of a sign." [illegible]

The belief of the conclusion necessarily follows the combined apprehension of the two propositions involved in the logical datum *(parámarsa)*, and therefore stands to it in the relation of an effect to its cause.

?

लिङ्गं त्रिविधं अन्वयव्यतिरेकि केवलान्वयि केवलव्यतिरेकि-
चेति । अन्वयेन व्यतिरेकेणच व्याप्तिमदन्वयव्यतिरेकि यथा
वह्नौ साध्ये धूमवत्त्वं । यत्र धूमस्तत्राग्निर्यथा महानस इत्यन्वय-
व्याप्तिः । यत्र वह्निर्नास्ति तत्र धूमो ऽपि नास्ति यथा महाह्रद

इति व्यतिरेकव्याप्तिः। अन्वयमात्रव्याप्तिकं केवलान्वयि यथा घटोऽभिधेयः प्रमेयत्वात् पटवत्। अत्र प्रमेयत्वाभिधेयत्वघोव्यतिरेकव्याप्तिर्नास्ति सर्वस्य प्रमेयत्वादभिधेयत्वाच्च। व्यतिरेकमात्रव्याप्तिकं केवलव्यतिरेकि। यथा पृथिवीतरेभ्यो भिद्यते गन्धवत्वात्। यदितरेभ्यो न भिद्यते न तद्गन्धवत्। यथा जलं। न चेयं तथा। तस्मान्नतथेति। अत्र यद्गन्धवत्तदितरभिन्नमित्यन्वयो दृष्टान्तो नास्ति पृथिवीमात्रस्य पक्षत्वात्।

τεκμήριον

"A characteristic token (*linga*) is of three sorts, (1.) that which may be present in one case & absent in another ~~has reference both to association and separateness~~ (*anwaya-vyatireki*); (2.) that which is only attendant ~~has reference to association only~~, (*kewalánwayi*); and (3.) that which is only an attribute ~~has reference to separateness only~~, (*kewalavyatireki*). The first is that token which is possessed of pervading inherence (*vyápti*) both in respect of its association (with the thing which it betokens), and its absence (when the thing it betokens is absent), as, for example, *smokiness* when *fire* is to be proved. When it is said, 'where there is smoke there is fire, as on a culinary hearth,' we have a case of invariable concomitance ~~universal affirmative~~. When it is said 'where fire is not, there smoke also is not, as in a great deep lake,' we have a case of invariable discordance ~~universal negative~~. The second is that token which has no negative instance, as when it is said 'the jar is nameable because it is provable, as cloth is,' there is no instance of nameableness or of provablness being present where the other is absent, because every thing is both provable and nameable. The third is that token in regard to which we can reason only from its invariable absence. For example, (we might argue as follows):—

"(1.) Earth is different from these (other elements):
"(2.) Because it is odorous;
"(3.) Nothing that is not different from these (other elements) is odorous—as water, (for example, is not odorous):

unconcomitant

✓

cognizable

cognizableness

cognizable

literal?

The string jumps?

"(4.) But this (earth) is not inodorous:—

"(5.) Therefore it is not like the other elements:—

but if (in the third member of the argument) we had argued (affirmatively) that 'what possesses odour is different from the other elements, we should have had no example to cite in confirmation, seeing that of earth alone can that property be asserted."

Into this superfluous subtilty the *Naiyáyikas* would seem to have been led by their giving so much greater prominence to the Rhetoric than to the Logic of their system. Such an argument as that just quoted goes far to justify the disparaging estimate of Hindú Logic entertained in Europe. Throwing aside the needlessly assumed necessity for the citation of an example in every argument propounded to another, and waiving all dispute about the truth of the premises, the argument could be easily enough stated with a universal affirmative premiss—thus—

"(1.) Whatever is odorous differs from the other (inodorous) elements:

"(2.) Earth is odorous:

"(3.) Therefore Earth differs from the others."

सन्दिग्धसाध्यवान्पक्षः। यथा धूमवत्त्वे हेतौ पर्वतः। निश्चितसाध्यवान् सपक्षः। यथा तत्रैव महानसः। निश्चितसाध्याभाववान् विपक्षः। यथा तत्रैव महाह्रदः।

"That whose possession of the property in question is doubtful is called the subject (*paksha*); as the mountain, when the fact of its smoking is assigned as the reason (for inferring the presence of fire). That which certainly possesses the property in question is called an instance on the same side (*sapaksha*); as the culinary hearth, in the same example. That which is certainly devoid of the property in question is called an instance on the opposite side (*vipaksha*); as the great deep lake, in the same example."

The *sapaksha* corresponds to Bacon's *instantiæ convenientes* "quæ in eadem natura conveniunt, per materias licet dissimilimas." The *vipaksha* corresponds to the instantiæ "quæ natura data privantur."—(Organum, Lib. 2, Aph. XI and XII).

OF FALLACIES.

सव्यभिचारविरुद्धसत्प्रतिपक्षासिद्धबाधिताःपञ्चहेत्वाभासाः।

"The five that merely present the appearance of a reason (*hetwábhása*), are (1.) that which goes astray, (2.) that which would prove the contradictory, (3.) that ~~than which~~ where there is a equally strong~~er~~ argument on the other side, (4.) the inconclusive, and (5.) the futile."

सव्यभिचारोऽनैकान्तिकः। स त्रिविधःसाधारणासाधारणानुपसंहारिभेदात्। तत्र साध्याभाववद्वृत्तिः साधारणोऽनैकान्तिकः। यथा पर्वतो वह्निमान् प्रमेयत्वादिति प्रमेयत्वस्य वह्न्यभाववति ह्रदे विद्यमानत्वात्।

"The alleged reason which goes astray (*savyabhichára*), is that which may have a conclusion other (than the one wanted). It is of three kinds—(1.) What would prove too much (*sádhárana*); (2.) what belongs to none besides the individual (*asádhárana*); and (3.) the non-exclusive (*anupasanhári*). The fallacy falls under the first head, when that which is alleged as the proof may be present whilst that which is to be proved is absent:—as for instance, if one should say, 'The mountain is fiery, because the existence of the mountain is capable of proof,' (the reason assigned would be liable to this [illegible] involves ~~asserts~~ incompatible co-existence

(an object of right knowledge) it is cognisable

X That is to say — we must enquire whether the anumána, from which we got our conclusion, is a good one — a real case of vyáptidhí

the necessity of [illegible] [illegible] attention [illegible]

[illegible]

Cognizance

cognizability

objection) because ~~the~~ capability of having its ~~existence~~ proved belongs (equally) to a lake, which is characterised by the absence of fire."

The result of this, translated into the language of European logic, is, that in such a case an opponent would deny the major,—viz. that "All that is demonstrable is fiery." There, therefore, is a question, not of formal logic, but of fact—a question to be determined by inductive investigation.

सर्वसपक्षविपक्षव्यावृत्तो ऽसाधारणः। यथा शब्दो नित्यः शब्दत्वादिति शब्दत्वं सर्वेभ्यो नित्येभ्यो ऽनित्येभ्यश्च व्यावृत्तं शब्दमात्रवृत्ति।

belongs

"The pretended reason which applies neither to similar instances nor dissimilar ones, is one devoid of community (*asádhárana*). As, when one says 'Sound is eternal, for it has the nature of sound.' Now the nature of sound resides in sound alone, and in nothing else, whether eternal or uneternal."

belongs to

This fallacy consists in what we should call the attempt to prove the proposition by reasserting it. "It is so"—"why?"—"because it is so."

अन्वयव्यतिरेकदृष्टान्तरहितो ऽनुपसंहारी यथा सर्वमनित्यं प्रमेयत्वादिति। अत्र सर्वस्यापि पक्षत्वात् दृष्टान्तो नास्ति।

"The pretended argument, which can bring an example neither in support or in opposition, is non-exclusive (*anupasanhárí*). For example—should one say, 'Every thing is uneternal, because it is capable of proof'—there would be no example to cite, because 'every thing' (leaving nothing over) is the subject of the conclusion."

साध्याभावव्याप्तो हेतुर्विरुद्धः। यथा शब्दो नित्यः कृतकत्वादिति। कृतकत्वंहि नित्यत्वाभावेनानित्येन व्याप्तम्।

"A reason proving the reverse (*viruddha*), is that which invariably attends the absence of what is to be proved. For example—suppose one should say, 'sound is eternal because it is created.' (We should reject his argument at once) because the fact of having been created implies non-eternity—the negation of being eternal.")

In this case, as before, the major is denied, viz.—that "every thing created is eternal." Whether sound be created or uncreated is a disputed point among Indian philosophers—the grammarians, of course, taking the side in the dispute which tends most to exalt the subject-matter of their own science. Mr. Babbage assigns to sound an eternity of a different kind from that contemplated by the Hindú sages, for he argues, that the undulations, on which sound depends, being once produced can never be absolutely annihilated; though, through excessive diffusion, the force becomes so diminished that our dull organs are not affected by it. Were it not, for this, we might still hear the echoes of Cicero' eloquence haunting the Roman forum.

(1) साध्याभावसाधकं हेत्वन्तरं यस्य स सत्प्रतिपक्षः । यथा शब्दो नित्यः श्रावणत्वात् शब्दत्ववदिति । शब्दोऽनित्यः कार्यत्वात् घटवदिति ।

"A counterbalanced reason (*satpratipaksha*) is that along with which there exists another reason, which establishes the non-existence of what is to be proved. As if one should argue, 'Sound is eternal, because it is audible, as the nature of sound is (by both parties admitted to be),' (it might be argued, with equal force on the other side, that) 'Sound is non-eternal, because it is a product, as a jar is.' "

Wherever there appears to be an equiponderance of arguments, the case is one for further enquiry. As for the example in the the text, a Buddhist would dispose of it by deny-

Observed, as we learn by experience

"Again, sometimes there is a tacit assumption of the existence of realities, such as the word represents." Newman, p. 20, (under "Faults of *Definition*").

nature alleged does not really reside in the subject ing that any thing exists in reality corresponding to the term *śabdatwa,* "the abstract nature of sound." Granting that there were such a thing, and that it were eternal as here assumed, there is a fallacy of equivocation in the attribution to it of the terms "audibleness," and "eternity."

The term *śabdatwa* is audible, like other words, only in the sense of what is called in the Logic of the schools its *suppositio materialis* (the *anukarana* of the Sanskrit Grammarians) —in so far as it is a pronounceable collection of vowels and consonants; but it is held to be eternal in quite a different sense—in the sense of its being an abstract entity—in which sense it is no more audible than is the abstract nature of a jar, or any other kindred pseudo-Platonic Universal.

असिद्धस्त्रिविधः। आश्रयासिद्धः स्वरूपासिद्धो व्याप्यत्वासिद्धश्चेति।

the unreality of location

"~~The fallacy of inconclusivness~~ is threefold—(1.) where there is not established the existence of any such locality as that where the property is alleged to reside (*áśrayásiddha*;) (2.) where the ~~inconclusiveness is apparent from the form of the expression~~ the alleged (*swarúpásiddha*); and (3.) where invariableness of concomitancy is not ~~established~~ real (*vyápyatwásiddha*)."

आश्रयासिद्धो यथा गगनारविन्दं सुरभि। अरविन्दत्वात्। सरोजारविन्दवत्। अत्र गगनारविन्दमाश्रयः स च नास्त्येव।

"(As an example of) the fallacy of non-existent locality, (suppose that one argues), 'The sky-lotus is fragrant, because the nature of a lotus resides in it, as in the lotuses of the lake'—here the sky-lotus is (alleged as) the locality (of the nature of a lotus), and in fact it (the sky-lotus) does not exist."

Mr. Mill, (Logic, vol. 1, p. 200), treating of the nature of

Definition, has the following remarks, which noticeably illustrate the case in hand.

He says:—

"Let this, for instance, be our definition; A dragon is a serpent breathing flame. This proposition, considered only as a definition, is indisputably correct. A dragon *is* a serpent breathing flame: the word *means* that. The tacit assumption, indeed, (if there were any such understood assertion,) of the existence of an object with properties corresponding to the definition, would, in the present instance, be false. Out of this definition we may carve the premises of the following syllogism:—

"A dragon is a thing which breathes flame.
But a dragon is a serpent;
From which the conclusion is
Therefore some serpent or serpents breathe flame:"—

"An unexceptionable syllogism, in the first mode of the third figure, in which both premises are true, and yet the conclusion false; which every logician knows to be an absurdity. The conclusion being false, and the syllogism correct, the premises cannot be true. But the premises, considered as parts of a definition, are true: there is no possibility of controverting them. Therefore, the premises considered as parts of a definition cannot be the real ones. The real premises must be:

"A dragon is a *really existing* thing which breathes flame:—

"A dragon is a really existing serpent:

"Which implied premises being false, the falsity of the conclusion presents no absurdity."

स्वरूपासिद्धो यथा शब्दो गुणश्चाक्षुषत्वात्। अत्र चाक्षुषत्वं शब्दे नास्ति शब्दस्य श्रावणत्वात्।

where the nature does not really exist in
the subject

that in which the nature is predicated of the
subject

"As (an example of) an argument ~~evidently inconclusive~~, (suppose one were to argue), 'Sound is a quality, because it is visible'—here (every one would perceive at once, that) visibility does not reside in sound, for sound is recognised by the hearing (not by vision)."

This is the case of notorious falsehood in the minor premiss.

सोपाधिको हेतुर्व्याप्यत्वासिद्धः। साध्यव्यापकत्वे सति साधनाव्यापक उपाधिः।

"A reason, when there is an indispensable condition, is faulty as regards comprehensiveness. Such an indispensable condition (*upádhi*) is what always attends the property to be established, but does not always attend what is brought forward in proof."

What follows is intended to elucidate the terms of this definition.

साध्यसमानाधिकरणात्यन्ताभावाप्रतियोगित्वं साध्यव्यापकत्वं। साधनवन्निष्ठात्यन्ताभावप्रतियोगित्वं साधनाव्यापकत्वम्।

"Invariable attendance on the property to be established (*sádhya-vyápakatwa*) consists in the not being the counterpart (*apratiyogitwa*) of the absolute non-existence (*atyantábháva*) attendant on (*samánádhikarana*) that which is to be proved. Non-invariable attendance on what is brought forward in proof (*sádhanávyápakatwa*) consists in the being the counterpart (*pratiyogitwa*) of the non-existence which resides in the proof."

The *Naiyáyikas* glory in this bewildering style of elucidation. In the present instance the question was this—"in what consists such invariable attendance as that of wet fuel on smoke?" In order that the answer might be sufficiently adorned with obscurity, the term Non-existence, the great ally in the mystification of language, is called into council; and it is determined that, so far as concerns the production of smoke, there is the non-existence of every thing that is not required for its production. For example, jars are not indispensable, nor elephants, nor astronomical calculations, nor an indefinite number of other things, the non-existence of all of which is compatible with the production of smoke. The counterpart (*pratiyogi*) of the non-existence of any thing being the thing itself, and the counterparts of all the non-existences compatible with the production of smoke being all those things that are *not* indispensable for its production, it follows that the characteristic of the indispensable is its being something different from all these—or, as our author expresses it, its *not* being the counterpart of any of these non-existences. Such, in the case of smoke, is the part performed by wet fuel, which is not the counterpart of the non-existence of jars, &c. but is the counterpart of the non-existence of itself—a non-existence which is *not* compatible with the production of smoke.

The second definition is the converse of this.

पर्व्वतो धूमवान् वह्निमत्वादित्यत्र आर्द्रेन्धनसंयोग उपाधिः। तथाहि यत्र धूमस्तत्रार्द्रेन्धनसंयोग इति साध्यव्यापकता। यत्र वह्निस्तत्रार्द्रेन्धनसंयोगो नास्ति अयोगोलके आर्द्रेन्धनसंयोगाभावादिति साधनाव्यापकता। एवं साध्यव्यापकत्वे सति साधनाव्यापकत्वादार्द्रेन्धनसंयोग उपाधिः। सोपाधिकत्वाद्वह्निमत्वं व्याप्यत्वासिद्धम्।

"(Suppose it to be argued that), 'The mountain must smoke, because it is fiery'—in this case the contact of wet fuel is an indispensable condition. For 'wherever there is smoke, there

there is the conjunction of wet fuel'—so that we have here invariable attendance on what is to be proved (*sádhyavyápakatá*). But it is not true that 'wherever there is fire, there there is conjunction of wet fuel'—for there is no conjunction of wet fuel in the case of an (ignited) iron ball—so we have here non-invariable attendance on the proof (*sádhanávyápakatá*). As there is thus its invariable attendance on what is to be proved, the contact of wet fuel is an indispensable condition for the sufficiency of the reason alleged. As it would require this additional condition (in order to prove that smoke must be present), fieriness (in the argument before us) is faulty as regards comprehensiveness."

An argument proposed in the form "The mountain is fiery:—therefore it must smoke," is called an Enthymeme—because, only one of the premises being expressed, the other is regarded as remaining in the mind (*en thymo*) of the reasoner. In the case of a fallacy propounded as an Enthymeme [see Whately's Logic, Book 3, § 1.] it is impossible to tell whether the fallacy is in the form or in the matter. For example, the suppressed premiss in the present case may be either "Some things when ignited are smoky," or "All things where ignited are smoky." On the former alternative, the fallacy is the formal one of undistributed middle; on the other alternative, the major premiss is false, as proved in the text by the instance of the ignited iron ball. The *Nyáya*, which takes no notice of formal fallacies, assumes that the suppressed premiss is in the form in which, if its truth were conceded, it would really establish the point in question: for example—

"Whatever is ignited smokes;
"The hill is ignited;
"Therefore it smokes."

The instance of the ignited iron ball enables us merely to deny the Major premiss of this syllogism. It is not unfrequently useful, however, to know not merely that something is wrong, but to know how far it is wrong—or what amount of correction would make it right. With this view the case may be regarded as falling under the head of the procedure "a dicto *secundum quid* ad dictum simpliciter," that is to say "from an assertion *with a qualifying condition,* to the same assertion without the qualification." Thus, if we concede to the *Naiyáyika* his theory of smoke, we may say with him that "Whatever is ignited—provided there is the conjunction of wet fuel—smokes"—from which, however, we cannot go on to infer that the hill, being *simply ignited,* smokes. There the reason (fieriness) is "secundum quid" (*sopádhika*) in the major premiss, and the fallacy consists in the dropping of the "quid" (*upádhi*) in the minor.

यस्य साध्याभावः प्रमाणान्तरेण निश्चितः स बाधितः। यथा वह्निरनुष्णो द्रव्यत्वादिति। अत्रानुष्णत्वं साध्यं तदभाव उष्णत्वं स्पार्शन प्रत्यक्षेण गृह्यते इति बाधितत्वं॥

॥ व्याख्यातमनुमानम्॥

"An argument is futile (*bádhita*) when the reverse of what it seeks to prove is established for certain by another proof. For example (it may be argued that), 'Fire is cold, because it is a substance'. There coldness is to be proved; and its opposite, warmth, is apprehended by the very sense of touch. Hence the argument is futile.

"Thus has Inference been expounded."

Our text-book now proceeds to treat of

COMPARISON.

उपमितिकरणमुपमानम्। संज्ञासंज्ञिसम्बन्धज्ञानमुपमितिः। तत्करणं सादृश्यज्ञानम्। अतिदेशवाक्यार्थस्मरणमवान्तर-

(or really an argument at all)
x i.e. valid only when conditioned

Opposed, logically i.e. as regards
the form of expression,
as that x cannot
be equal to 2x

+ Its instrument is the knowledge of a likeness.

[illegible]

व्यापारः। तथाहि गवयशब्दवाच्यमजानन् कुतश्चिदारण्यक पुरुषाद्गोसदृशो गवय इति श्रुत्वा वनं गतो वाक्यार्थं स्मरन् गोसदृशपिण्डं पश्यति तदनन्तरं असौ गवयशब्दवाच्य इत्युपमितिरुत्पद्यते। व्याख्यातमुपमानम्॥ #

"Comparison (*upamána*) is the cause of an inference from similarity (*upamiti*). Such an inference consists in the knowledge of the relation between a name and the thing so named. ✓x The recollection of the purport of a statement of resemblance is the operation of that statement. ~~a step involved in the process~~. For example—a person not knowing what is meant by the word *gavaya* (Bos gavaeus), having heard from some inhabitant of the forest that a *gavaya* is like a cow, goes to the forest. Remembering the purport of what he has been told, he sees a body like that of a cow. Then this inference from similarity arises (in his mind), that 'this is what is meant by the word *gavaya*.'"

?! medium?

form?

"Thus has comparison been expounded." !

Our text-book now proceeds to treat of

TESTIMONY.

आप्तवाक्यं शब्दः। आप्तस्तु यथार्थवक्ता। वाक्यं पदसमूहः। यथा गामानयेति। शक्तं पदं। अस्मात्पदादयमर्थो बोद्धव्य इति ईश्वरेच्छा संकेतः शक्तिः।

"A word (or right assertion) is the speech of one worthy (of confidence). One worthy, is a speaker of the truth. A speech (or sentence) is a collection of significant sounds; as, for example, 'Bring the cow.' A significant sound (*pada*) is that which is possessed of power (to convey a meaning). Such power ~~consists~~ in its being ~~the will of God,~~ or ~~in a con-~~

?

the cries of the animals are not padas.

ven~~tion's being~~ made, That 'Such and such a meaning is to be understood from such and such a word:'"

आकांक्षा योग्यता सन्निधिश्च वाक्यार्थज्ञानहेतुः।

"The cause of a sentence's being significant, (is the presence of) mutual correspondence, compatibility, and juxtaposition (of the words)." Expectancy

These three requisites are explained as follows :—

1 पदस्य पदान्तरव्यतिरेकप्रयुक्तान्वयाननुभावकत्वमाकांक्षा।
/ब अर्थाबाधो योग्यता। पदानामविलम्बेनोच्चारणं सन्निधिः।

Expectancy

"Mutual correspondence (*ákánkshá*) means the reverse of a disposition to indicate any other than the intended connexion of one word with another. Compatibility (*yogyatá*) consists in (a word's) not rendering futile the sense (of the sentence). Juxtaposition (*sannidhi*) consists in the enunciation of the words without a (long) pause between each."

Examples of deficiency in each of these respects here follow :—

आकांक्षादिरहितं वाक्यमप्रमाणं यथा गौरश्वःपुरुषो हस्तीति न प्रमाणमाकांक्षाविरहात्।

Expectancy

"A collection of words devoid of mutual ~~correspondence~~, &c. is no valid sentence—for example 'cow, horse, man, elephant,' gives no information, the words ~~having no reference~~ one to another." not looking out for

The word *ákánkshá* literally means "desiring, or looking for." In the sentence "*Devadatto gráman gachchhati,*" "Devadatta goes to the village"—the first word is in the nominative case, a form which, as it belongs to an agent, looks

application un-appropriate
This [~~species~~ of the] will of God is ~~appoint-~~
[of a word to a sense] or its
? ~~sense, or~~ power [to convey such sense].

recognized as ? See p. 52
interdependence ? congruity ? ; propinquity
proximity

The interdependence[x] of (two or more) words consists in the non-existence (in any one or more of them), — produced by the exclusion of another word (or words), — of the condition of being, (unassisted), the cause of the apprehension of the (proposed) connection (between the significations of the words concerned).

[x] or — the mutual necessity of the mutual presence.

absurd? "Mutual regard means the inability in a word to indicate the intended sense in the absence of another word."

Expectancy (i.e., a word's interdependence on another) means the incapacity of making us aware of a complete and consistent sense — this incapacity being
misread? occasioned by the absence of another word [which, when it comes as expected, will complete the sense].

[illegible]

Evidence (of the Speaker's meanings)

valid - rational.

for another word denoting action. The word denoting action, the third in the sentence, looks for some object of the action. This it finds in the second word, which, being in the objective case, was looking out for the verb. Each word in such a sentence finds every other kind of word which it requires. This, however, is not sufficient to ensure a sentence's being faultless, as our textbook goes on to show.

अग्निना सिञ्चेदिति न प्रमाणं योग्यताविरहात्।

cause of ~~expect~~ certain right knowledge.

"The expression 'He should irrigate with fire' is no ~~valid sentence~~, for there is no compatibility (between fire and irrigation)."

प्रहरे प्रहरे असहोच्चारितानि गामानयेत्यादिपदानि न प्रमाणं सान्निध्याभावात्।

T

not [illegible]

"The words 'Bring—the—cow'—not pronounced close together but with an interval of some three hours between each, [illegible] ~~constitute no valid sentence~~, from the absence of (the requisite) closeness of juxtaposition."

वाक्यं द्विविधं वैदिकं लौकिकञ्च। वैदिकमीश्वरोक्तत्वात्सर्वमेव प्रमाणं। लौकिकन्तु आप्तोक्तम्प्रमाणं अन्यदप्रमाणम्।

See Hindi

"Speech is of two kinds, sacred (*vaidika*), and temporal or profane (*laukika*). The former, being uttered by God, is all authoritative: but the latter, only if uttered by one who deserves confidence, is authoritative; any other~~wise it~~ is not so."

Who "deserves confidence," is a question which our textbook does not enter upon.

वाक्यार्थज्ञानं शाब्दज्ञानं तत्करणं शब्दः। इति यथार्थानुभवो निरूपितः।

"The knowledge of the meaning of speech is verbal knowledge; its instrumental cause is language.

"Thus has been explained what constitutes correct knowledge."

अयथार्थानुभवस्त्रिविधः संशयविपर्ययतर्कभेदात् ।

"Incorrect knowledge is of three sorts, according to the division of doubt, mistake, and (such opinion as is open to) *reductio ad absurdum.*"

fancy - [illegible]

एकस्मिन्धर्मिणि विरुद्धनानाधर्मवैशिष्ट्यावगाहि ज्ञानं संशयः । यथा स्थाणुर्वा पुरुषो वेति ।

(and the same)

"The recognition, in one thing possessing a certain nature, of several heterogeneous natures as characterising it, is doubt (*sansaya*). For example 'a post, or a man!'"

The object is supposed to be seen from a distance, or when there is little light; and, whilst we have not made up our mind that it ~~is~~ *not* a post, or that it is *not* a man, we continue to associate both natures with it, and this constitutes doubt.

that [illegible]

मिथ्याज्ञानं विपर्ययः । यथा शुक्ताविदं रजतमिति ।

"Apprehending falsely is mistake (*viparyaya*). For example, in the case of mother o' pearl, the idea that this is silver."

व्याप्यारोपेण व्यापकारोपस्तर्कः । यथा यदि वह्निर्न स्यात्तर्हि धूमोऽपि न स्यादिति ।

"*Reductio ad absurdum* (*tarka*) consists in establishing the pervader (here supposed to be denied) through the allegation of the pervaded (here supposed to be granted). For example, 'If there were not fire (which you deny), then there would not be smoke (which you admit there is).'"

+ a species of pramá or right notion —
See p. 20.

Error

(i.e. of)

Recognition relating to the connection of several contrary natures in one & the same th.

Error

by the admission of the pervaded (smoke) the (virtual) admission of the pervading (fire) is (what is shown by a reasoner when he uses [illegible] something) the reductio ad absurdum (or the process of confutation)

[illegible]
a perceivable by all as

On the three kinds of wrong notion it may be remarked, that the first, or doubt, ceases when one of the conflicting natures excludes the rest; the result, however, may still be a wrong notion of the second kind, or a mistake; for our doubt ceases when we become sure that a given object is a man, though in reality it be a post. Mistake ceases, when, by more careful examination or by other means, an apprehension of the real nature of the thing displaces the erroneous apprehension. The third kind of error is that where no further examination is required, the want of logical perspicacity being all that prevents the individual from perceiving that the opinion which he entertains is inconsistent with ~~admitted facts.~~ something else which he himself admits.

स्मृतिरपि द्विधा यथार्थायथार्थाच। प्रमाजन्या यथार्था।
अप्रमाजन्याऽयथार्था।

"Memory also is of two kinds, correct and incorrect. Correct memory is that which arises from correct knowledge. Incorrect memory is that which arises from incorrect knowledge."

Our text book, of which a considerable space has been occupied with the quality of Intellect, now goes on to the remaining qualities, pleasure, pain, &c.

सर्वेषामनुकूलवेदनीयं सुखम्। प्रतिकूलवेदनीयं दुःखम्।

"What all perceive to be agreeable, is pleasure *(sukha)*; what appears disagreeable, is pain *(dukha)*."

इच्छा कामः। क्रोधो द्वेषः। कृतिः प्रयत्नः।

" Desire (*ichchhá*) means wishing. Aversion (*dwesha*) means disliking. Effort (*prayatna*) means action."

विहितकर्मजन्यो धर्मः। निषिद्धकर्मजन्यस्त्वधर्मः।

"Virtue, or merit, (*dharma*) arises from the performance of what is enjoined: but vice, or demerit (*adharma*) from the performance of what is forbidden."

बुद्ध्यादयो ऽष्टावात्ममात्रविशेषगुणाः।

"The eight qualities, ~~beginning with~~ Intellect, &c. are distinctive of Soul alone."

बुद्धीच्छाप्रयत्ना द्विविधा नित्या अनित्याश्च। नित्या ईश्वरस्य। अनित्या जीवस्य।

"Intellect, desire, and effort, are of two kinds, eternal and transient; eternal in God, transient in mortals." ?

संस्कारस्त्रिविधो वेगो भावना स्थितिस्थापकश्चेति। वेगः पृथिव्यादिचतुष्टयमनोवृत्तिः। अनुभवजन्या स्मृतिहेतुर्भावना आत्ममात्रवृत्तिः। अन्यथाकृतस्य पुनस्तादवस्थ्यापादकः स्थितिस्थापकः कटादिपृथिवीवृत्तिः। इति गुणाः।

A quality self-reproductive

"~~Faculty~~ (*sanskára*) is of three kinds, momentum, imagination, and elasticity. Momentum (*vega*) resides in the four beginning with Earth, and in Mind. Imagination (*bhávaná*), the cause of memory ~~(and~~ arising from notion, resides only in the Soul. Elasticity (*sthitisthápaka*) is that which restores to its former position what had been altered. It resides in mats and the like formed of the earthy element.

"So much for the Qualities."

It may seem strange to class together things in which any common ground of classification is so little apparent as in the qualities of momentum, imagination, and elasticity. We offer the following conjectural explanation—that for the pro-

?

~~cause of memory?~~ /

Imagination (bhāvanā.

duction of such an effect, or the establishment of such a product, as a jar, two causes at least must co-operate; viz. the maker and the material:—for the clay may be said to make the jar, as reasonably as the potter can be said to make it. So again, in order that there may be Perception, both the Mind and an external Object must co-operate. But equally in the case of the Mind's exerting the faculty of Memory; of a bent bow's righting itself on the removal of the strain; and of a body's continuing its course after disjunction from that which originated the motion, an agent is recognized as operating *by itself*. Looking at the etymology of the word *sanskára*—(*sam* "with," and *kri* "do")—one might imagine the word to be better fitted to express what is done, by the mind, &c. in co-operation with something else, than what is done without such co-operation: but occasionally, in a compound verb, the separate force of the constituent elements is nearly as little obvious as the character of the acid or the alkali in a neutral salt. The quality appears to be that of self-reproduction,

Most of the commentators on the *Nyáya* appear to have overlooked the necessity for defining the connotation of the term *sanskára*. We have been able to meet with only one attempt to define it—the explanation being to this effect, that a *sanskára*, acting as a cause, reproduces itself as an effect.

We now come to the category of

ACTION.

चलनात्मकं कर्म ।

"Action consists in motion."

ऊर्ध्वदेशसंयोगहेतुरुत्क्षेपणं । अधोदेशसंयोगहेतुरपक्षेपणं । शरीरस्य सन्निकृष्टसंयोगहेतुराकुञ्चनं । विप्रकृष्टसंयोगहेतुः

प्रसारणं। अन्यत्सर्वं गमनं। पृथिव्यादिचतुष्टयमनोमात्रवृत्ति।

"Casting upward *(utkshepaṇa)* is the cause of conjunction with a higher place. Casting downward *(apakshepaṇa)* is the cause of contact with a lower place. Contraction *(ákunchaṇa)* is the cause of conjunction with what is near the body. Dilatation *(prasáraṇa)* is the cause of conjunction with what is distant. Going *(gamana)* is the name of every other variety. Action resides only in the four beginning with Earth, and in Mind."

We now come to the category of

COMMUNITY.

नित्यमेकमनेकानुगतं सामान्यं द्रव्यगुणकर्मवृत्ति। तद् द्विविधं परापरभेदात्। परं सत्ता। अपरं जातिर्द्रव्यत्वादिः।

"Community (*sámánya*) is eternal, one, belonging to more than one, residing in Substance, Quality, and Action. It is of two kinds, higher and lower. The highest degree of community (or the *summum genus*) is existence. ~~The lower degree is that of species (*játi*), such as is~~ Substantiality (the common nature of what are called Substances)."

Of two classes, the one of which includes the other, the more extensive is called *para* with respect to the other, just as is the case in our employment of the terms *genus* and *species.*

Next we have the Category of

DIFFERENCE.

नित्यद्रव्यवृत्तयो व्यावर्त्तका विशेषाः।

The Comic Genius ~~in its lower degree~~ is such a one as

Ultimate Differences

Don't

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